

CLAIMS:

1. Method of producing a weight-optimized pneumatic tire rim, in the case of which a rim well (1) with rotationally-symmetrically partially different wall thicknesses is produced by means of cold forming from a tube section (1a) preferably produced from a welded tube and is subsequently connected with a rim dish, characterized in that, starting from the two end sides, the wall of the tube section (1a) is in each case changed over a defined rotationally symmetrical area, which forms a flank (6), while forming a precontour, to a largely precise wall thickness (S2), the tolerance-caused excess material of the flanks (6) being pushed into a well base zone (7) between the two flanks (6), and in that, subsequently the flanks (6) are contoured by pressure rolling while drawing toward the free edge area and are reduced in their thickness (S4, S5), as required, partially differently, to a predefined measurement.
2. Method according to Claim 1, characterized in that, before the leveling of the wall thickness (S1), the cylindrical tube section (1a) is widened on at least one, preferably both end sides.
3. Method according to one of the preceding claims, characterized in that, during the drawing, the flanks (6) are pressed with their faces against a stop (9a).
4. Method according to one of the preceding claims, characterized in that the precontouring of the flanks (6) and its leveling of the wall thickness (S1) takes place by rolling.
5. Method according to one of the preceding claims, characterized in that the tolerance-caused excess material of the flanks (6) is utilized for a largely uniform thickening of the wall thickness (S3) of the well base (7).

6. Method according to one of the preceding claims, characterized in that, during the drawing of the flanks (6), the rim well (1) is shaped to a final contour.

7. Method according to one of the preceding claims, characterized in that, after their drawing, the free end areas of the flanks (6) are finished by shaping rolling.

8. Device for implementing the method according to Claim 1, characterized in that, for the precontouring of the rim well (1) and the leveling of the wall thickness of the flanks (6), a tool lining (2) is provided which has a first lining part (3) and a second lining part (4), which can be moved relative to one another in the axial direction and whose outer surface areas have a precontour (5).

9. Device according to Claim 8, characterized in that the largest diameter of the lining parts (3, 4) in the machining area is larger than the inside diameter of the at first cylindrical tube section (1a).

10. Device according to Claim 8, characterized in that the precontour (5) is bounded by surrounding stops (9) in the form of an edge.

11. Device according to one of Claims 8 to 10, characterized in that the axially movable lining part (3) or (4) can be moved in a spring-loaded manner against the other lining part (3) or (4).

12. Device according to Claim 11, characterized in that another tool lining (2a) is provided which consists of a first lining part (3a) and of a second lining part (4a) and which, on the surface area side, has a contour (5a) which corresponds to the contour of the finished rim well (1) in the area of the flanks (6).

13. Device according to one of Claims 8 to 12, characterized in that the contour (5a)

is bounded on the end side by one surrounding stop (9a) respectively.

14. Device according to one of Claims 8 to 13, characterized in that at least one pressure roller / rolling tool (8) is provided by means of which the tube section (1a) can be pressed into the precontour (5) or the contour (5a).

15. Device according to one of Claims 8 to 14, characterized in that the shaping rollers (10) are provided by means of which the end areas of the contoured rim well can be machined.